

β^1 forming a drain electrode and a source electrode separated by a channel region over a contact portion with said amorphous silicon layer; and

removing said impurity from said channel region and diffusing said impurity into said contact portion to form a contact layer within said amorphous silicon layer, wherein said contact layer has a second resistance lower than said first resistance.

β^2 11. (amended) The method of claim 1 wherein said silicon layer is etched utilizing a common photoresist to form said electrodes.

13. (amended) A method of fabricating a thin film transistor comprising the steps of:

providing a gate over a substrate;

providing a gate insulating layer over said gate and said substrate;

β^3 providing an amorphous silicon layer having a first resistance over said gate insulating layer;

providing an impurity over said amorphous silicon layer;

etching said silicon layer utilizing a common photoresist to form a drain electrode and a source electrode separated by a channel region over a contact portion with said amorphous silicon layer; and

removing said impurity from said channel region and diffusing said impurity into said contact portion to form a contact layer within said amorphous silicon layer, wherein said contact layer has a second resistance lower than said first resistance.

24. (amended) A method of fabricating a thin film transistor comprising the steps of:

providing a gate over a substrate;

providing a gate insulating layer over said gate and said substrate;

providing an amorphous silicon layer having a first resistance over said gate insulating layer;

providing an impurity over said amorphous silicon layer;

providing a photoresist over said impurity and back exposing said photoresist utilizing said gate stack as a mask and developing a pattern substantially identical with that of said gate;

removing said pattern and forming a drain electrode and a source electrode separated by a channel region over a contact portion with said amorphous silicon layer; and

removing said impurity from said channel region and diffusing said impurity into said contact portion to form a contact layer within said amorphous silicon layer, wherein said contact layer has a second resistance lower than said first resistance.

50. (amended) A method of fabricating a liquid crystal display (LCD) comprising the steps of:

providing a plurality of thin film transistors arranged on a LCD substrate in a matrix form, each of said thin film transistors fabricated by the steps of:

providing a gate over a substrate;

providing a gate insulating layer over said gate and said substrate;

providing an amorphous silicon layer having a first resistance over said gate insulating layer;

providing an impurity over said amorphous silicon layer;

forming a drain electrode and a source electrode separated by a channel region over a contact portion with said amorphous silicon layer; and

removing said impurity from said channel region and diffusing said impurity into said contact portion to form a contact layer within said amorphous silicon layer, wherein said contact layer has a second resistance lower than said first resistance.

62. (amended) A method of fabricating a liquid crystal display (LCD) comprising the steps of:

providing a plurality of thin film transistors arranged on a LCD substrate in a matrix form, each of said thin film transistors fabricated by the steps of:

providing a gate over a substrate;

providing a gate insulating layer over said gate and said substrate;

providing an amorphous silicon layer having a first resistance over said gate insulating layer;

providing an impurity over said amorphous silicon layer;


etching said amorphous silicon layer utilizing a common photoresist to form a drain electrode and a source electrode separated by a channel region over a contact

 portion with said amorphous silicon layer; and

removing said impurity from said channel region and diffusing said impurity into said contact portion to form a contact layer within said amorphous silicon layer, wherein said contact layer has a second resistance lower than said first resistance.

73. (amended) A method of fabricating a liquid crystal display (LCD) comprising the steps of:

providing a plurality of thin film transistors arranged on a LCD substrate in a matrix form, each of said thin film transistors fabricated by the steps of:

 providing a gate over a substrate;

providing a gate insulating layer over said gate and said substrate;

providing an amorphous silicon layer having a first resistance over said gate insulating layer;

providing an impurity over said amorphous silicon layer;

providing a photoresist over said impurity and back exposing said photoresist utilizing said gate stack as a mask and developing a pattern substantially identical with that of said gate;

removing said pattern and forming a drain electrode and a source electrode separated by a channel region over a contact portion with said amorphous silicon layer; and

removing said impurity from said channel region and diffusing said impurity into said contact portion to form a contact layer within said amorphous silicon layer, wherein said contact layer has a second resistance lower than said first resistance.
